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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,401	10/01/2003	Martin C. Zieger	6741P001	7555

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SAP/BSTZ  
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EXAMINER
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SHEIKH, ASFAND M

ART UNIT	PAPER NUMBER
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3627

MAIL DATE	DELIVERY MODE
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05/11/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/676,401	ZIEGER, MARTIN C.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Asfand M. Sheikh	3627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-33 is/are pending in the application.
- 4a) Of the above claim(s) 12-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 11/30/2009 have been fully considered but they are not persuasive.

With respect to the Applicant's Arguments, the examiner still notes Itschner is not analogous art with respect to loading a shipment, however the element combined from Itschner is analogous to the idea of a skipping range during a simulation of a rule (e.g. Koch state equation) as claimed by the Applicant. The examiner is taking the analogous feature of Itschner which known in the arts at the time of the Applicant's Invention and utilizing that as a teaching that can be combinable to Cappellini.

Further the examiner has cited motivation for the combination of Itschner:" method by which data can be reproduced electrically by simple means with accuracy sufficient for control purposes over a relatively large range (see at least, Itschner, col. 1, lines 48-51)" which interpreted would relate to the idea of using a electrical simulation to provide accuracy for a given range of control.

The examiner notes one of ordinary skill in the art would have been able to realize that simulation via the use of ignoring a range of values (see Itschner, col. 2, lines 1-14) could be implemented into the simulation of loading a container for maximum capacity (see Cappellini, [0183]-[0184] and [0186]) and from such a combination obtain a predictable result.

Further the examiner respectfully notes that motivation was provided for the combination between Cappellini and Itschner to Benda. Further the examiner notes that their would have been predictable success from such a combianion. Therefore the examiner finds these arguments not persuasive.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benda et al. (US 6,937,992 B1) in view of Cappellini (US 2003/0014286 A1) and Itschner (US 3,970,832).

#### Claims 1, 3, 5, 8, 9, and 10

Benda discloses comprising: receiving a demand order including a set of products to be shipped (see at least, abstract and col. 4, lines 28-39 and col. 5, lines 41-63).

Benda fails to disclose simulating a loading of a shipment of the set of products into a set of transports; evaluating a shipping rule for the shipment, the shipping rule is permitted to be a complex logical statement; and attempting to fill each transport in the set in simulating the loading of the shipment and further evaluating a constraint during

the simulation and detecting a skipping of a range of the constraint and adjusting the simulating of the loading of the shipment in response to the skipping.

Cappellini discloses disclose simulating a loading of a shipment of the set of products into a set of transports (see at least, [0182]); evaluating a shipping rule for the shipment, the shipping rule is permitted to be a complex logical statement (see at least, [0170] and [0188]); and attempting to fill each transport in the set in simulating the loading of the shipment (see at least, [0189]); and performing related steps by a computer (see at least, abstract); [claim 3] wherein the complex logical statement is defined by a user (see at least, [0189]: various rules defined by a user); [claim 5] further comprising: downsizing the shipment to match a maximum capacity of the transport (see at least, [0183] and [0189]); [claim 8 and 10] wherein simulating includes incrementing an amount of a first product in the shipment by one shipping unit (see at least, [0182]: the examiner notes the use of a mathematical model that would adjust as necessary to fit a given rule (e.g. add, subtract, etc); [claim 9] wherein the shipping unit is a pallet (see at least, [185]).

It would have been obvious to one of ordinary skill in the art to modify the teachings of Benda's vehicle capacity maximization to include simulating a loading of a shipment of the set of products into a set of transports; evaluating a shipping rule for the shipment, the shipping rule is permitted to be a complex logical statement; and attempting to fill each transport in the set in simulating the loading of the shipment as taught by Cappellini. One of ordinary skill in the art would have been motivated to combine the teachings in order to used for the sole simple use of determining the

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availability of space or capacity for a required transport vehicle (see at least, Cappellini, [0183]).

Itschner discloses evaluating a constraint during the simulation and detecting a skipping of a range of the constraint and adjusting the simulating in response to the skipping (see at least, col. 2, lines 1-14: the examiner notes ignoring (e.g. is interpreted to be skipping) and further simulation ion of temperature ranges (e.g. is interpreted to be a range of constraint values that are adjusted during the simulation based on the skipping (e.g. ignoring)).

It would have been obvious to one of ordinary skill in the art to modify the teachings of Benda's vehicle capacity maximization to include discloses evaluating a constraint during the simulation and detecting a skipping of a range of the constraint and adjusting the simulating in response to the skipping as taught by Itschner. One of ordinary skill in the art would have been motivated to combine the teachings in order to provide method by which data can be reproduced electrically by simple means with accuracy sufficient for control purposes over a relatively large range. (see at least, Itschner, col. 1, lines 48-51).

### Claims 2

Benda discloses further comprising: simulating one of a balanced load and a straight load of the shipment in the transport (see at least, col. 5, lines 15-57: the examiner notes straight loading is used: one shipment then building on the one shipment with another shipment).

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Claims 4

Benda discloses further comprising: upsizing the shipment to fill the transport (see at least, col. 5, lines 15-57: the examiner notes straight loading is used: one shipment then building on the one shipment with another shipment).

Claims 6

Benda discloses wherein the shipping rules include at least one constraint including one of a weight constraint, a volume constraint, and a product combination constraint (see at least, col. 5, lines 15-57: the examiner notes the use of a volume constraint to maximize a vehicle capacity).

Claims 11

Benda discloses further comprising: attempting to fill at least one transport, the at least one transport having multiple destinations (see at least, col. 5, lines 15-57: the examiner notes attempting to fill the transport via the use of multiple destinations).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asfand M. Sheikh whose telephone number is (571)272-1466. The examiner can normally be reached on 9a-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ryan M. Zeender can be reached on (571)272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Asfand M. Sheikh/  
Examiner, Art Unit 36275/7/2010

/F. Ryan Zeender/

Supervisory Patent Examiner, Art Unit 3627